

Extended Abstract

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Paper/Poster Title	Improving migrant seasonal workers living and working conditions– Assessing Farmers’ and Consumers’ preferences using a common elicitation format
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Abstract prepared for presentation at the 97th Annual Conference of the Agricultural Economics Society, The University of Warwick, United Kingdom

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Abstract	200 words max
<p>The research project assesses consumers’ and producers’ preferences for enhanced living and working standards of migrant seasonal workers in Germany. The analysis is based on a discrete choice experiment with nearly identical choice sets for consumers (n=227) and apple producers. Mixed logit models were used for the analysis. The predicted probability of consumers to choose an apple produced under improved living and working conditions was 85 %. For most of the attributes, significantly positive estimates were found in the consumer sample. Consumers valued higher minimum wages, the obligation to participate in the German social security system, and bonus payments on Sundays or public holidays. Higher prices for apples and longer working hours per week decreased their probabilities to opt for an apple produced under improved standards. The characteristics of the participants were included and revealed that female consumers and consumers that prefer organic or regional food were more likely to choose an apple produced under improved conditions. The farmer survey is still ongoing. In the end, the estimated willingness-to-pay (WTP) values from the consumers and the estimated willingness-to-accept (WTA) values from the farmers will be used to calculate supply and demand curves.</p>	
Keywords	Discrete Choice, Seasonal Workers, Common Elicitation Format, Market Simulation, Domestic Fair Trade, Social Rights, COVID-19
JEL Code	e.g. Energy: Demand and Supply Q41 see: www.aeaweb.org/jel/guide/jel.php?class=Q
Introduction	100 – 250 words
<p>The COVID-19 pandemic shed light on various challenges for society. It highlighted, for instance, the importance of the workforce from eastern European countries. Seasonal workers were classified as critical workforce at the start of the pandemic (Szelewa & Polakowski, 2022) They were, therefore, allowed to fly into other EU countries even after the EU decided to close the borders in the Schengen region (Augère Granier, 2021). However, large COVID-19 outbreaks in slaughterhouses and on farms also raised awareness about seasonal workers’ employment conditions. Common living and working</p>	



conditions at farms and in the agribusiness sector make seasonal workers especially vulnerable to infections. Research from the US shows, for instance, that seasonal workers in agriculture were 4.5 % more likely to infect themselves with COVID-19 than other employees (Charlton, 2021).

Because of their essential role, the European Commission aims to issue new guidelines that assure better protection of migrant seasonal workers (Augère Granier, 2021). However, farmers fear that improved living and working standards cause higher costs and that they might not be able to sell more expensive products. This article seeks to analyse whether these fears are justified and simulates a market for apples produced under higher standards.

Surveying consumers and producers also allows us to determine the aspects of employment in which society perceives the greatest need for action and which changes would be easier or more difficult for the growers to implement. The analysis is based on two discrete choice experiments.

Methodology

100 – 250 words

For both surveys, a common design was used. The attributes presented to the farmers and the consumers were increases in the minimum wages paid per hour, the obligation to participate in the German Social Security System, bonus payments on Sundays and public holidays, decreases in the maximum amount of working hours, and improvements in accommodation. The levels of the attributes represent tightening of the current legislation and aim for improved living and working conditions.

However, the production costs at the farm and thus the prices are expected to increase when ‘fairer’ apples are grown. For this reason, possible increases in apple prices are considered in the consumer survey. In the farmer survey, higher prices for apples produced under higher standards were offered. The design was determined using *dcreate* in Stata. The D-efficiency of both questionnaires was estimated to be 93 %.

Both surveys were set up online. The consumer survey was conducted by a marketing research company; the producer survey is currently advertised by (fruit) farmers’ associations. Each consumer was asked to answer six choice sets. Farmers were presented with nine sets. On each choice set, two hypothetical ‘fairer’ apples and the option out (buying a standard apple) were presented to consumers. Two hypothetical contracts for the production of ‘fairer’ apples and the status quo were used in the farmers’ survey. Mixed logit models were used for the estimations.

Results

100 – 250 words

Currently, only preliminary results for the consumer survey are available. The farmer survey is ongoing. All of the estimates showed the expected signs in the mixed logit model to explain consumers’ decisions for a ‘fairer’ apple. The predicted probability to choose one of the ‘fairer’ apples was 85 %.

It increased when seasonal workers were paid higher wages and bonuses payments for working on Sundays and on public holidays, and with the obligation to participate in the social security system. As

expected, the predicted probabilities to choose one of the 'fairer' apples decreased for more expensive products. In addition, longer working hours per week were evaluated negatively. The attributes that referred to the accommodation on farm seem to be unimportant. However, a significantly positive effect is found for the obligation to offer 'double bedrooms', but the effect is significant at a low level only.

The consumers' characteristics were added into the mixed logit model as interaction effects with the alternative-specific constant (ASC). They reveal that female consumers are more likely to choose an apple than male consumers. Additionally, higher education levels decreased the probabilities to opt for a hypothetical 'fairer' apple. Consumers more concerned about production standards were more likely to choose an apple. This is shown by the significantly positive estimates for the dummies 'Buys based on 'Regionality', 'Buys based on 'Organic Production Practices'.

Discussion and Conclusion

100 – 250 words

Our results show that German consumers would be interested in apples produced under higher standards. Private fairtrade certificates could be one option to enhance living and working conditions. The label could, for instance, require higher wages, and bonus payments. However, we find that consumers highly value the obligation to participate in the German social security system, and this is a change that might only be possible by adjusting legislation.

In general, the results of our experiment are in line with the literature. Latacz-Lohmann and Schreiner (2019) and Howard and Allen (2008) also find a high probability of consumers to buy fairer products or animal welfare meat. In their articles consumers interested in 'sustainable' products were also more likely to buy improved products.

However, Howard & Allen (2008) and Latacz-Lohmann & Schreiner (2019) also showed that the probability to buy them strongly decreased with price increases. Bürgin & Wilken (2021) summarised articles on consumers WTP for fairtrade coffee and conclude that they are on average only willing to pay 10 % in addition. This does not seem particularly high. Depending on the tightening of regulations of living and working conditions, it remains to be seen if product prices would only increase by 10 % points. Therefore, the market simulation is of interest to determine if consumers' WTP is higher than farmer' WTA.

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